

IN THE CLAIMS

1 (Previously Presented). A method of calibrating a digital camera for ambient light conditions comprising:

sequentially illuminating a plurality of lights arranged circumferentially about a white light transmissive plate, each of a different wavelength;
measuring the intensity of each of said lights; and
using said measurements to calibrate said digital camera for the ambient light conditions.

2 (Previously Presented). The method of claim 31 wherein measuring the ambient white light intensity is implemented automatically in response to a request for calibration.

3 (Previously Presented). The method of claim 31 wherein measuring the ambient white light intensity is implemented automatically in response to the detection of a change in ambient light conditions.

4 (Previously Presented). The method of claim 31 wherein measuring the ambient light conditions includes imaging an external device.

5 (Previously Presented). The method of claim 31 wherein measuring the ambient white light intensity involves measuring the light transmitted by a light emitting element coupled to said camera.

6 (Original). The method of claim 5 wherein measuring the ambient white light intensity includes moving a white light transmissive element into the optical axis of said digital camera.

7 (Original). The method of claim 1 wherein illuminating a plurality of lights involves illuminating at least four lights of different wavelengths.

8 (Original). The method of claim 1 wherein illuminating a plurality of lights includes illuminating at least five lights of different wavelengths.

9 (Original). The method of claim 4 further including using pattern recognition techniques to locate an external calibration device.

10 (Previously Presented). The method of claim 31 further including measuring the white light reflected by an external device and identifying indicia on said external device containing information about the optical characteristics of said external device.

11 (Previously Presented). The method of claim 31 wherein measuring the ambient white light intensity includes measuring the light transmitted through a device coupled to said camera and capturing information recorded on said device about the optical characteristics of said device.

12 (Currently Amended). A computer readable medium for storing computer instructions that, when [[if]] executed on a computer, enable a processor-based system to:
sequentially illuminate a plurality of lights arranged circumferentially, each of a different wavelength;
automatically measure the ambient white light intensity of each of said lights in response to a request for calibration; ~~and~~
automatically cause measurements of the white light intensity to be taken in response to the detection of a change in ambient light conditions; and
calibrate said digital camera for the ambient lighting conditions using said measurements.

Claims 13 and 14 (Canceled).

15 (Previously Presented). The medium of claim 12 further storing instructions that cause a processor-based system to cause a measurements to be taken of the light transmitted by a light emitting element coupled to said camera.

16 (Previously Presented). The medium of claim 12 further storing instructions that cause a processor-based system to use pattern recognition techniques to locate an external calibration device.

17 (Previously Presented). The medium of claim 12 further storing instructions that cause a processor-based system to measure the white light reflected by an external device and identify indicia on said external device containing information about the optical characteristics of said external device.

18 (Previously Presented). The medium of claim 12 further storing instructions that cause a processor-based system to measure the light transmitted through a device coupled to said camera and capture information recorded on said device about the optical characteristics of said device.

19 (Previously Presented). A portable device for calibrating a digital camera for varying ambient light conditions comprising:

- a housing having a white surface, said housing including two slidably connecting housing portions, one of said portions including said white surface;

- a plurality of light emitting elements adapted to illuminate said white surface; and

- a control circuit adapted to sequentially illuminate said light emitting elements, the other of said housing portions including said control circuit, a battery and said light emitting elements.

20 (Previously Presented). The device of claim 19 including indicia on said white surface containing coded information about the optical characteristics of said white surface.

21 (Original). The device of claim 19 including five light emitting elements, each emitting light of a different wavelength, said elements coupled to said control circuit.

22 (Original). The device of claim 21 including two light emitting elements emitting light of different wavelengths corresponding to a first primary color, two light emitting elements emitting light of different wavelengths corresponding to a second primary color and at least one light emitting element emitting light of the wavelength of a third primary color.

23 (Canceled).

24 (Previously Presented). A digital camera comprising:
an imaging sensor having an optical axis;
a white light transmissive plate mounted in said optical axis of said sensor and displaceable from said optical axis;
a plurality of light emitting elements arranged circumferentially about said white light transmitting plate to illuminate said white light transmissive plate with a plurality of different wavelengths; and
a control circuit to sequentially illuminate said light emitting elements.

25 (Original). The camera of claim 24 wherein said white light transmissive plate is rotatable out of the optical axis of said sensor.

26 (Canceled).

27 (Previously Presented). The camera of claim 24 including two light emitting elements emitting light of different wavelengths corresponding to a first primary color, two light emitting elements emitting light of different wavelengths corresponding to a second primary color and at least one light emitting element emitting light of the wavelength of a third primary color.

28 (Original). The camera of claim 24 adapted to take a plurality of measurements and to correct color based on ambient light conditions.

29 (Original). The camera of claim 28 including a processor adapted to automatically correct color when a change in ambient light conditions is detected.

30 (Original). The camera of claim 28 including a processor adapted to automatically correct color when an input signal is received indicative of a calibration request.

31 (Previously Presented). The method of claim 1 including measuring the ambient white light intensity.

Claim 32 (Canceled).